



HIV/STD Update

YKHC 6/2019

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This presentation is intended for educational use only, and does not in any way constitute medical consultation or advice related to any specific patient.

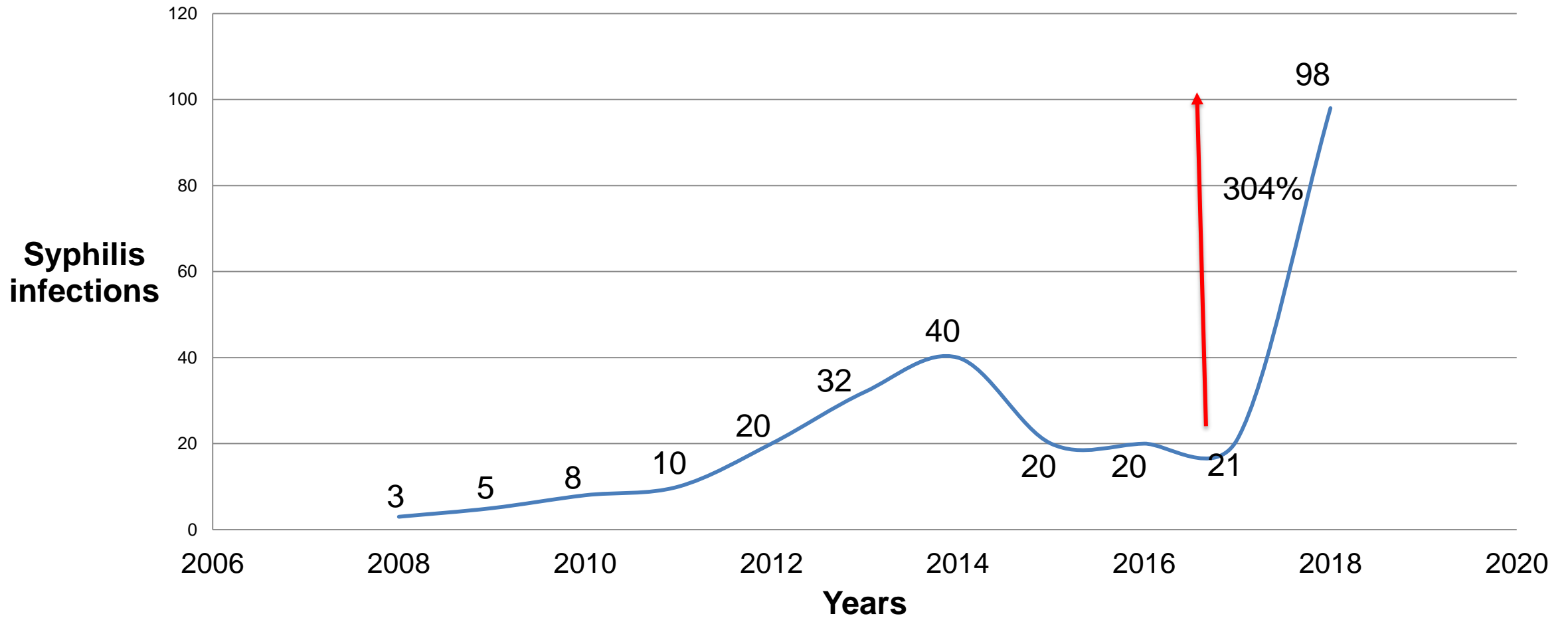
I Have no conflicts of interest to disclose



Topics

- STD update
- PrEP- pre-exposure prophylaxis
- Testing and treatment as prevention
- Screening for HIV

Syphilis in Alaska 2008 - 2018



Demographics

- About 80% of 2018 cases are in Anchorage; 90% in males; Age range is 20 – 63
- About 80% are MSM (CDC notes that MSM accounted for majority of reported syphilis in 2016)
- Out of all confirmed cases, about 25% are co-infected with HIV

Syphilis-Demographics shifting, 2019 to date

- Preliminary data for 2019, on pace with first quarter 2018
- Moving into heterosexual, IDU, homeless
- 50% with associated drug use
- 34% in AIAN
- In April increase in meth users and women

Syphilis Screening Recommendations

Pregnant Women	MSM	Persons Living with HIV
<ul style="list-style-type: none"> • All pregnant women at 1st prenatal visit • Retest early in the 3rd trimester • At delivery if at ↑ risk 	If sexually active: <ul style="list-style-type: none"> • At least annually • Every 3-6 mos if at ↑ risk 	If sexually active: <ul style="list-style-type: none"> • At first HIV evaluation • At least annually thereafter • Every 3-6 mos if at ↑ risk

Promptly report positive syphilis screens

Promptly treat confirmed sexual contacts while awaiting diagnostic test results.

Promptly treat and report all suspected and confirmed cases of syphilis. SOE staff happy to help with staging, consultation and partner management

(907) 269-8000

Preventive Treatment of Syphilis

- All persons who report exposure to syphilis should be prophylactically treated at the time of testing, do not wait for test results. Remember the incubation period for syphilis is as long as 90 days.
 - During that time:

Non-reactive serology

PLUS

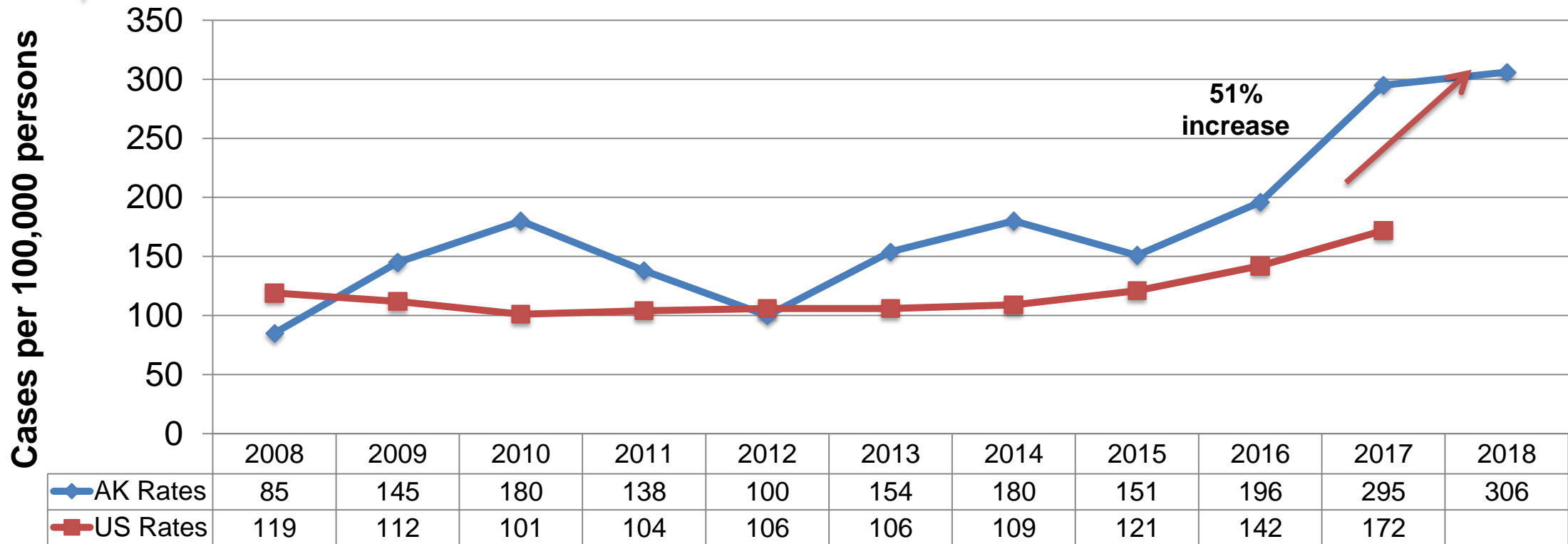
Treatment with 2.4 million Units
Benzathine penicillin
AT THE TIME OF TESTING

=

PREVENTION

Gonorrhea Case Rates – Alaska and US, 2008-2017

#2



Alaska Gonorrhea 2018

- 489 confirmed cases at ASPHL
 - 46% involved extragenital site
 - 40% of those had negative urine tests
- Disproportionately impacting teens, young adults and ethnic minorities
- Nationally 30% of infections resistant to at least one drug, thus 2 drug treatment advised.
- 2019 rates comparable to 2018, 2019 YTD: hetero > MSM



**You know barebacking
isn't safe, right?**

Extragenital Screening for CT/GC

- Testing at all anatomical sites used for sexual activity
- Requires a complete sexual history to elicit information, offer it regardless
- High rates of under-diagnosis of STD among gay, bi-sexual and other MSM
 - Urine-only screening misses 53% of CT & 64% of GC in MSM
- Oral/rectal swab is off-label use of the Aptima DNA probe

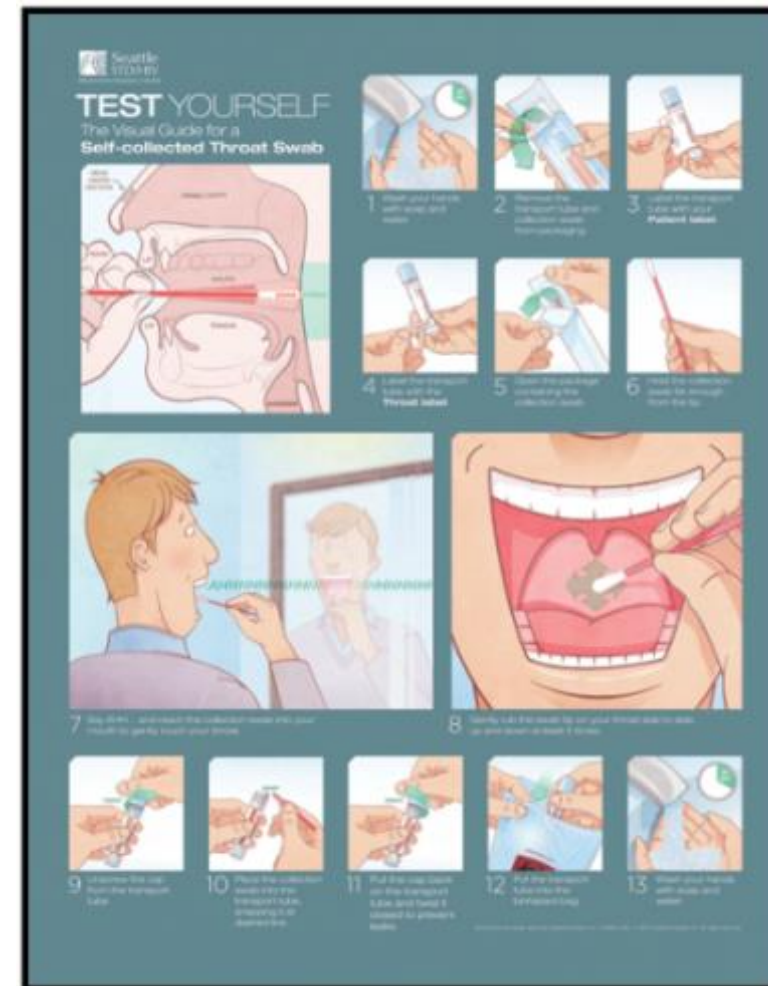
Unisex blue handled swab

Validated at State lab, ANMC,
commercial labs

Self Collection has high acceptability and much higher uptake. Patients are pretty good at it & they prefer it



UW STD PTC/Madison Clinic Self-Testing Program



Email aradford@uw.edu for free posters for your clinic/facility
NOW AVAILABLE IN SPANISH

Self-Collection of Rectal Swab

ATTENTION: Read ALL instructions before you begin!



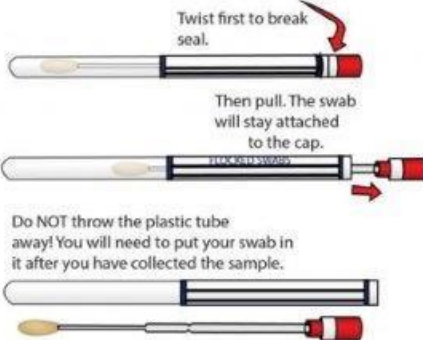
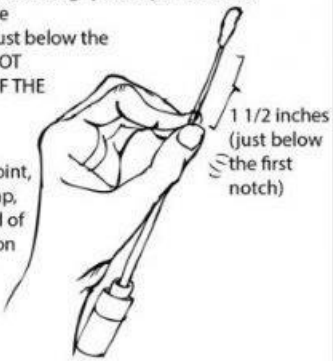

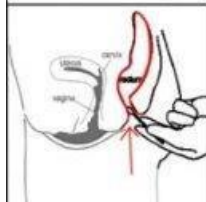
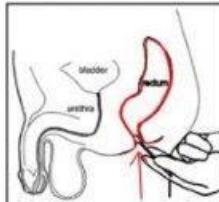




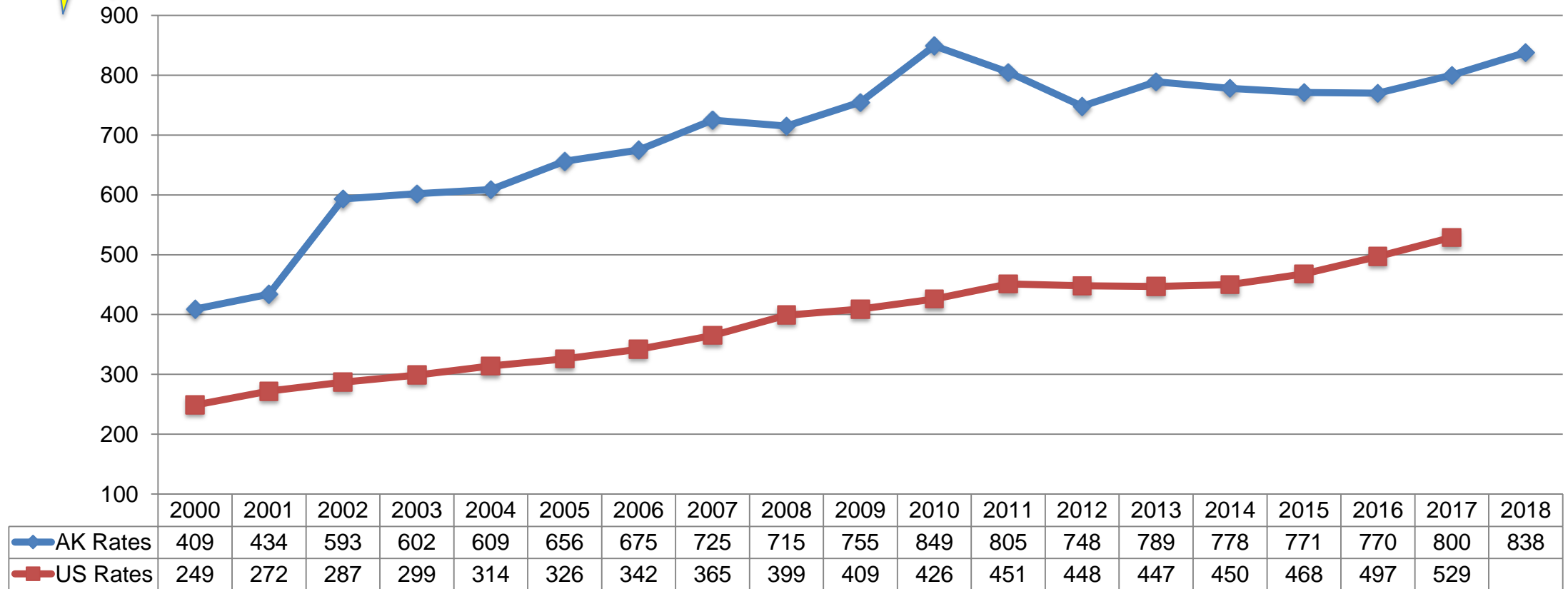
<p>STEP 1</p>  <p>Wash your hands thoroughly.</p>	<p>STEP 2</p>  <p>Unopened Swab</p> <p>Either squat down, or lift one leg on a toilet, ledge, or chair (as shown). Pull underwear down or off.</p>	<p>STEP 3</p> <p>Open the swab. DO NOT TOUCH THE TIP OF THE SWAB.</p>  <p>Twist first to break seal.</p> <p>Then pull. The swab will stay attached to the cap.</p> <p>Do NOT throw the plastic tube away! You will need to put your swab in it after you have collected the sample.</p>	<p>STEP 4</p> <p>With your dominant hand (right if you're right-handed, left if you're left-handed), grip the opened swab 1.5" away from the tip of the swab (just below the first notch). DO NOT TOUCH THE TIP OF THE SWAB.</p>  <p>1 1/2 inches (just below the first notch)</p> <p>Do NOT, at any point, use anything (soap, saliva, or any kind of lubricant) either on your body or on the swab.</p>
<p>STEP 5</p>  <p>With your other hand, position your bare buttock and lift one cheek for easy access to the rectum. (DO NOT use anything on your rectum or the swab.)</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Female Anatomy</p>  </div> <div style="text-align: center;"> <p>Male Anatomy</p>  </div> </div>		 <p>STEP 6 Insert the swab 1.5 inches into your rectum until you feel your fingers touch your anus.</p> <p>STEP 7 Once the swab is in, walk your fingers halfway down the swab (away from your body) and grip it there, for stability. (The swab should stay where it is—only your fingers should move.)</p> <p>STEP 8 Gently rub the swab in a circle, touching the walls of your rectum, to collect the specimen.</p> <p>STEP 9 When removing the swab from your rectum, slowly turn it in a circle while pulling it out.</p>	<p>STEP 10 Place used swab back into the transport tube. Close tightly to prevent leakage.</p>  <p>STEP 11 Place closed tube into the red plastic zip-lock bag. Seal the bag.</p>  <p>STEP 12 Place sealed zip-lock bag into the return mailer (white envelope with a blue diamond-shaped sticker on the front). Seal the envelope and drop it in any mailbox.</p>  <p>Peel off adhesive to reveal seal.</p>

Diagram designed by Garvi Sheth

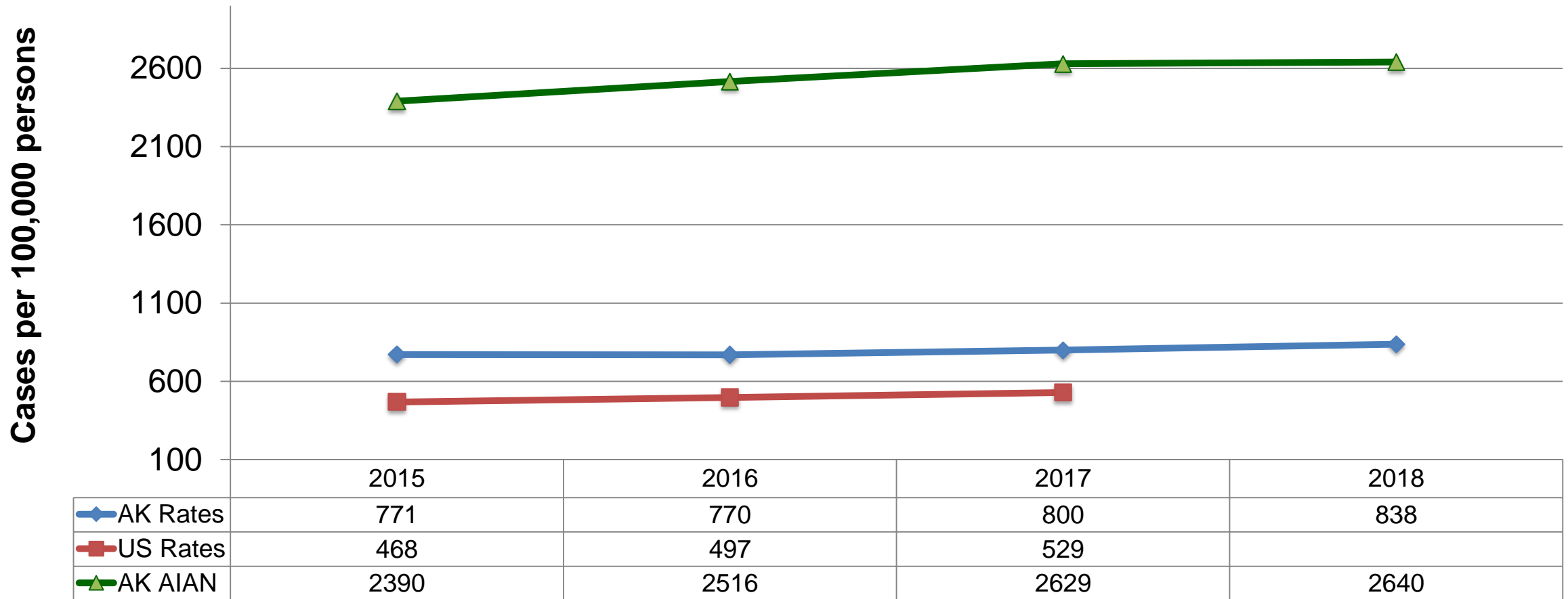
Chlamydia Case Rates – Alaska and US, 2000-2018

#1

Cases per 100,000 persons

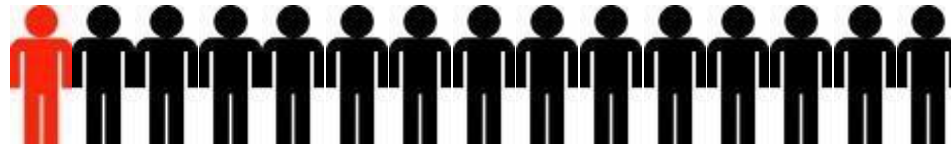


Chlamydia Case Rates – Alaska and US, 2015-2018



STD's predict future HIV Risk among MSM

Rectal GC
or CT



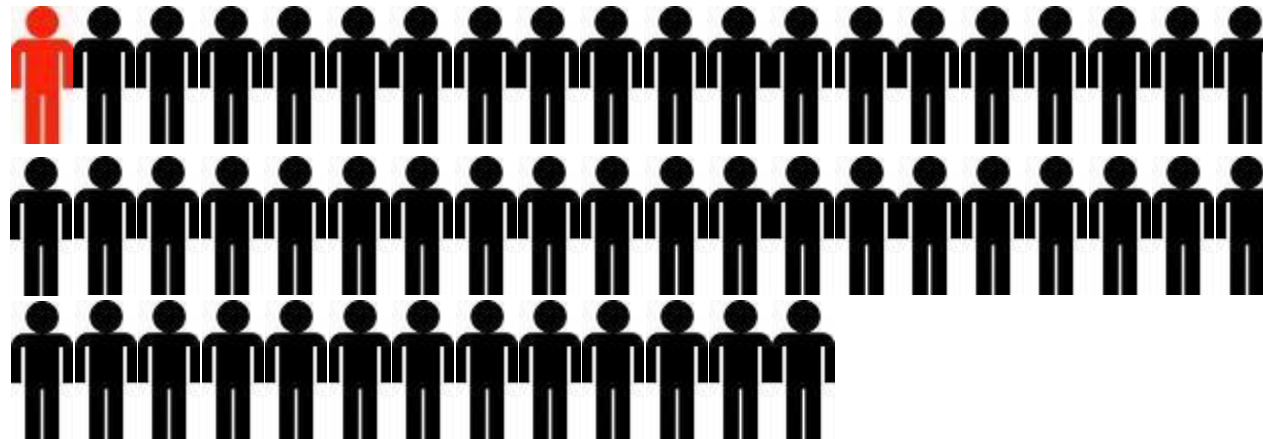
1 in 15 MSM were diagnosed with HIV within 1 year.*

Primary or
Secondary
Syphilis



1 in 18 MSM were diagnosed with HIV within 1 year.**

No rectal STD
or syphilis
infection



1 in 53 MSM were diagnosed with HIV within 1 year.*

*STD Clinic Patients, New York City. Pathela, CID 2013:57;

**Matched STD/HIV Surveillance Data, New York City. Pathela, CID 2015:61

HIV

- No big changes in Alaska numbers in 2018
 - 22 new dx / 54 % AIAN
 - Increase % in heterosexual, PWID
- Recent years 45-54% new HIV diagnoses in AIAN

AI/AN have *increasing* rates of new infection

From 2011 to 2015, HIV diagnoses



Other Factors

- Multiple partners
- Time spent in correctional facilities
- Increased use of drug and **alcohol**
- Use of internet networks to find partners – social networking

Source: Alaska HIV/STD Program staff (and friends)

HIV Screening Recommendations

- **EVERYONE!**
- Re-Screen at least annually patients with:
 - Known risk factors (MSM, IDU, HRH)
 - Multiple sexual partners
 - History of substance abuse
 - History of mental illness
 - Diagnosis of HCV, STD, or history of recurrent STD
 - Patients who report sex with travel





ENDING THE HIV EPIDEMIC: A PLAN FOR AMERICA

Ending
the
HIV
Epidemic

www.hiv.gov



HRSA
Health Resources & Services Administration



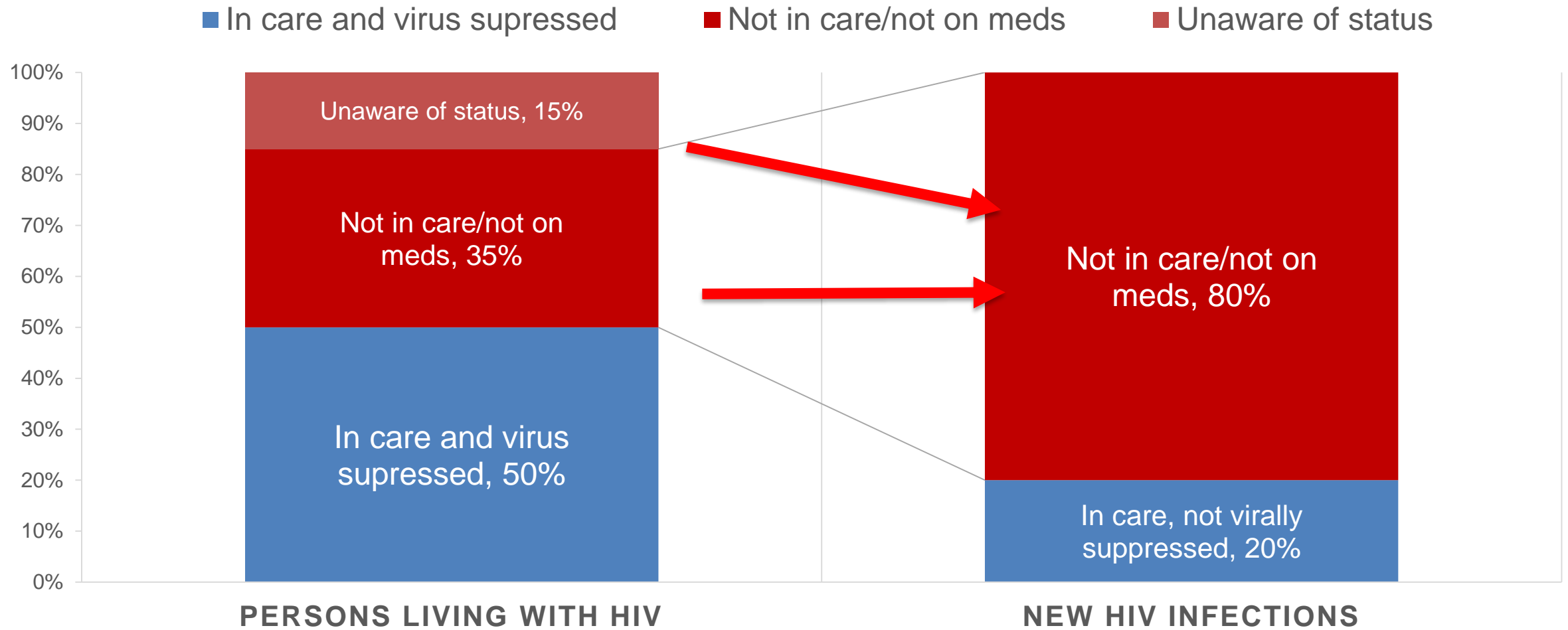
SAMHSA
Substance Abuse and Mental Health
Services Administration

Ending the HIV Epidemic: A Plan for America

Reduce new HIV infections by 75% in the next 5 years and 90% in the next 10 years

- Diagnose all people with HIV as early as possible after infection
- Treat the infection rapidly and effectively to achieve sustained viral suppression
- Protect people at risk for HIV using potent and proven prevention interventions, including PrEP (Pre-exposure prophylaxis), a medication that can prevent HIV infections

PLWHIV not in care pass most of new infections



HIV TRANSMISSIONS IN 2016		
% OF PEOPLE WITH HIV	STATUS OF CARE	ACCOUNTED FOR X% OF NEW TRANSMISSIONS*
15%	didn't know they had HIV	38%
23%	knew they had HIV but weren't in care	43%
11%	in care but not virally suppressed	20%
51%	taking HIV medicine and virally suppressed	0%

*Values do not equal 100% because of rounding

SOURCE: Vital Signs, 2019



bit.ly/2DW9Deb

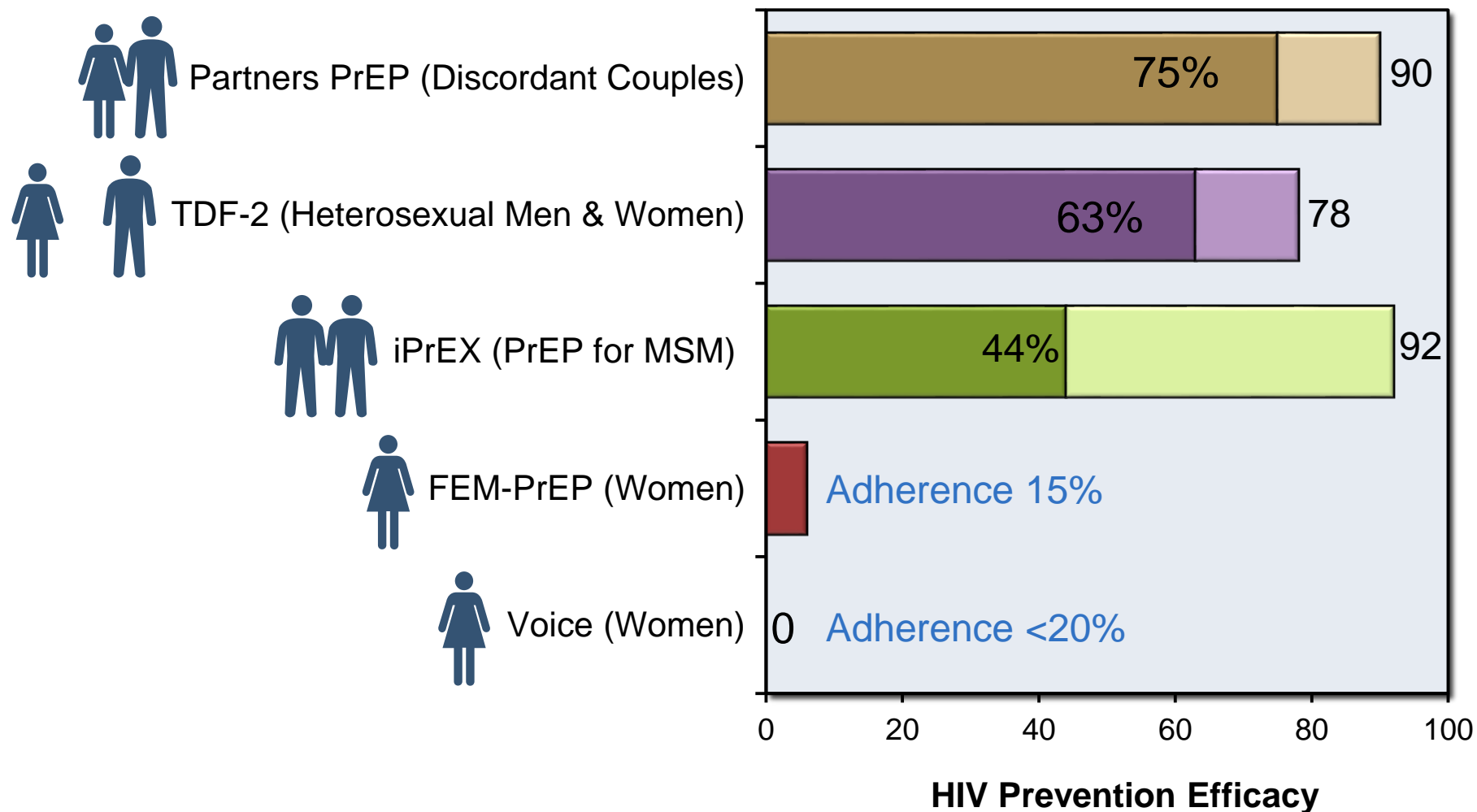
What is PrEP?

- A prevention strategy in which a **high-risk** individual takes a medication **regularly** (along with continued behavioral **risk-reduction** strategies) to prevent HIV infection
- Tenofovir-emtricitabine (*Truvada*) approved for HIV PrEP by the FDA in July 2012
- Added benefits: some protection against HSV and HBV

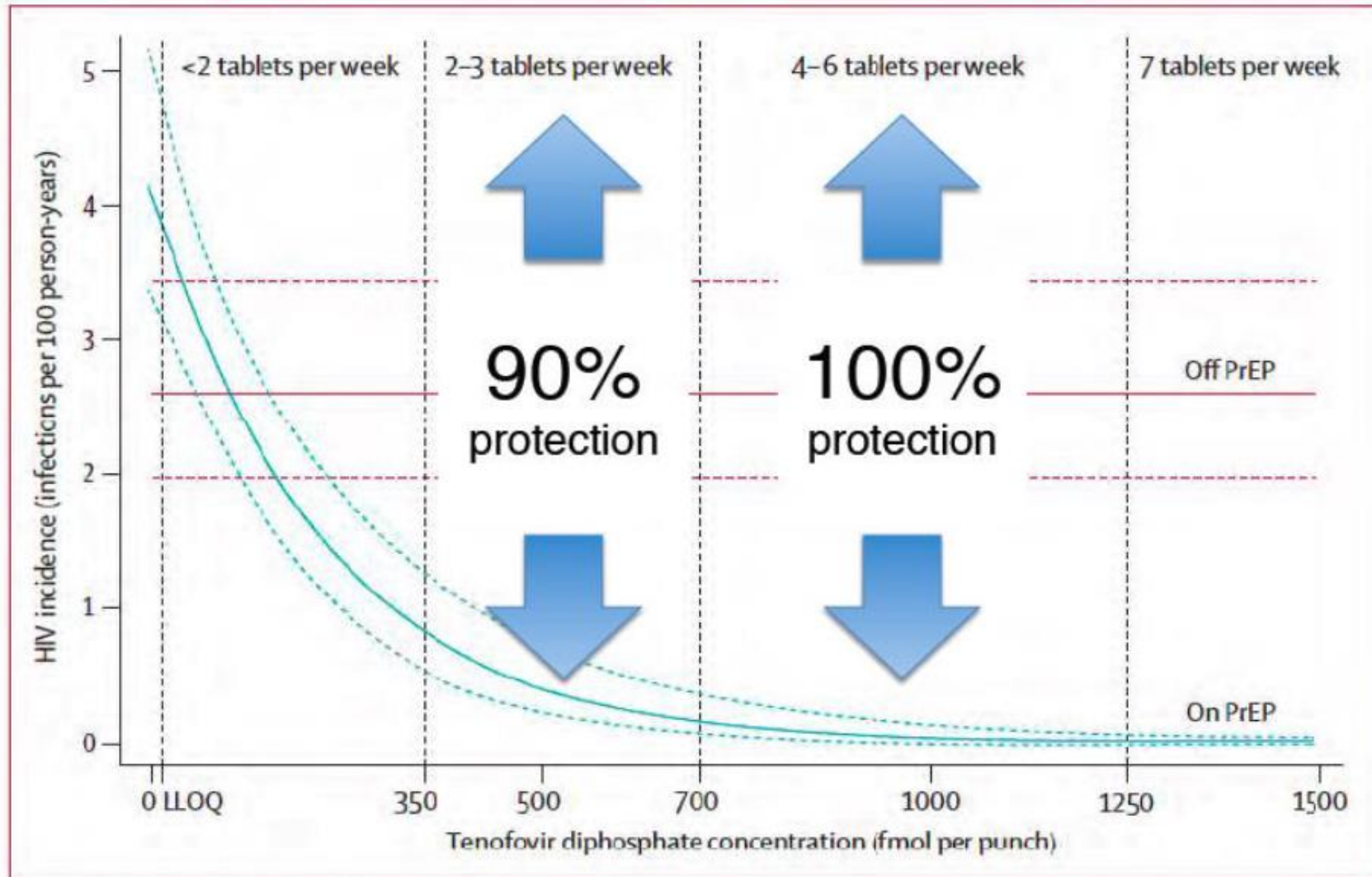


Sexual PrEP for HIV Prevention

Estimated Protection in Adherent Patients



iPrEx OLE confirmed prior estimates



Who to consider for PrEP

- Individuals with “**substantial risk**” for HIV
- Examples:
 - Man or woman in relationship with an HIV-positive partner (not virally suppressed)
 - Gay or bisexual man not in a mutually monogamous relationship & not using condoms 100%
 - Man or woman with recent STI
 - Man or woman sexually active with high-risk individuals
 - Man or woman who uses injection drugs
 - Commercial sex workers
 - Serodiscordant couple who want to conceive
 - Anyone who asks...

PrEP Guidelines:

A. Determine Eligibility

- Substantial ongoing risk for HIV
- Able to take a pill every day and return every 3 months
- Screen for HIV and consider need for HIV RNA (viral load)
- Check hepatitis B antibody panel and renal function

B. Prescribe PrEP

- Truvada 1 tab PO daily
- No more than 90 days at a time
- Emphasize importance of adherence

PrEP Guidelines:

C. Continue Counseling

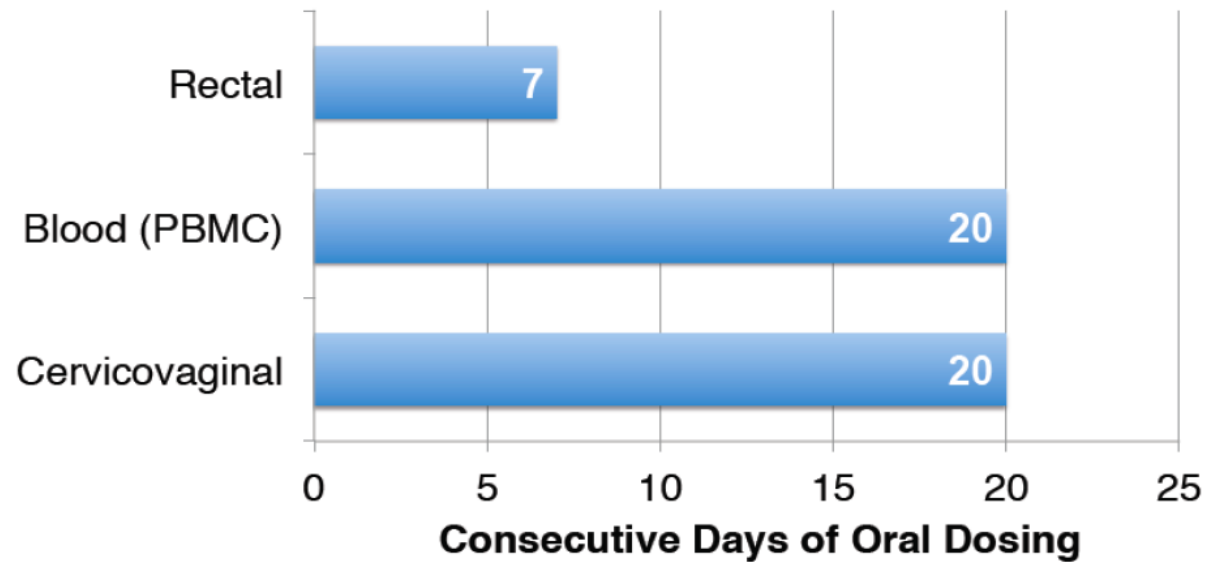
- Continue risk-reduction counseling and other preventive measures (condoms, clean needles, etc)
- Remember PrEP is not a stand-alone strategy

D. Lab Monitoring

- Every 3 month HIV test
- Every 3-6 month STI screening
- Renal function at 3 months, then every 3-6 months

How long before I'm protected?

Time to Maximum Intracellular Concentration of
Tenofovir Diphosphate (TFV-DP)



US Public Health Service. PrEP Guideline – 2014.

PrEP efficacy and future directions



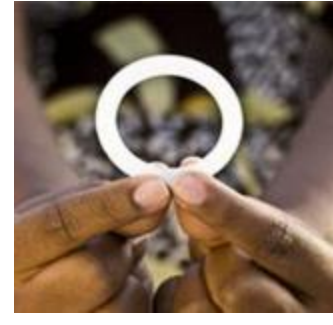
Pill



Gel



Vaginal film



Vaginal ring



Injectable

Number needed to treat (NNT) to prevent one case of HIV: **13-60**.¹

An estimated **33%** of HIV infections in MSM would be prevented over 10 years with 40% uptake and 60% adherent.²

*One thing that is needed around the world = prevention **options**.*

PrEP: A New Tool for HIV Prevention

Pre-exposure prophylaxis, or PrEP, is a new HIV prevention method in which people who do not have HIV infection take a pill daily to reduce their risk of becoming infected. The pill contains medicines that prevent HIV from making new virus as it enters

CDC Interim Guidance on HIV Pre-Exposure Prophylaxis

Before initiating PrEP

Determine eligibility:

- Document negative HIV antibody test immediately before starting PrEP medication.
- Test for acute HIV infection if patient has symptoms consistent with acute HIV infection or reports unprotected sex with an HIV-positive person in the preceding month.
- Determine if women are planning to become pregnant, are currently pregnant, or are breastfeeding.
- Confirm that patient is at ongoing, very high risk for acquiring HIV infection.
- If any sexual partner is known to be

Beginning PrEP medication regimen:

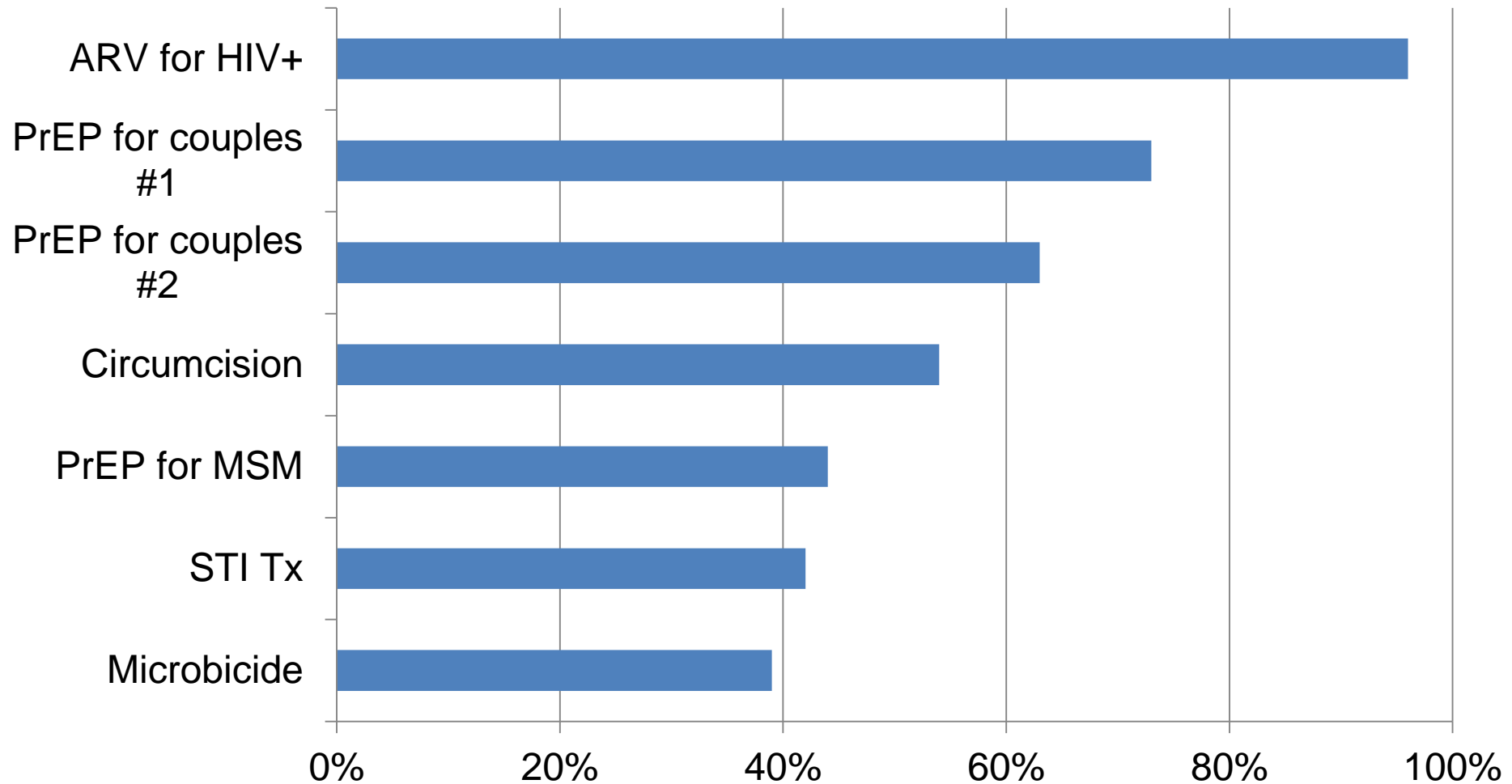
- Prescribe tenofovir disoproxil fumarate 300 mg (TDF) plus emtricitabine 200 mg (FTC) (i.e., one Truvada [Gilead Sciences] tablet) daily.
- In general, prescribe no more than a 90-day supply, renewable only after HIV testing confirms that patient remains HIV-uninfected. For women, ensure that pregnancy test is negative or, if pregnant, that the patient has been informed about use during pregnancy.
- If active hepatitis B infection is diagnosed, consider using TDF/FTC, which may serve as both

- Every 2–3 months, assess risk behaviors and provide risk-reduction counseling and condoms. Assess STI symptoms and, if present, test and treat for STIs as needed.
- Every 6 months, test for bacterial STIs even if asymptomatic, and treat as needed.
- Three months after initiation, then every six months while on PrEP medication, check serum creatinine and calculate creatinine clearance.

**On discontinuing PrEP
(at patient request, for safety concerns, or if HIV infection**



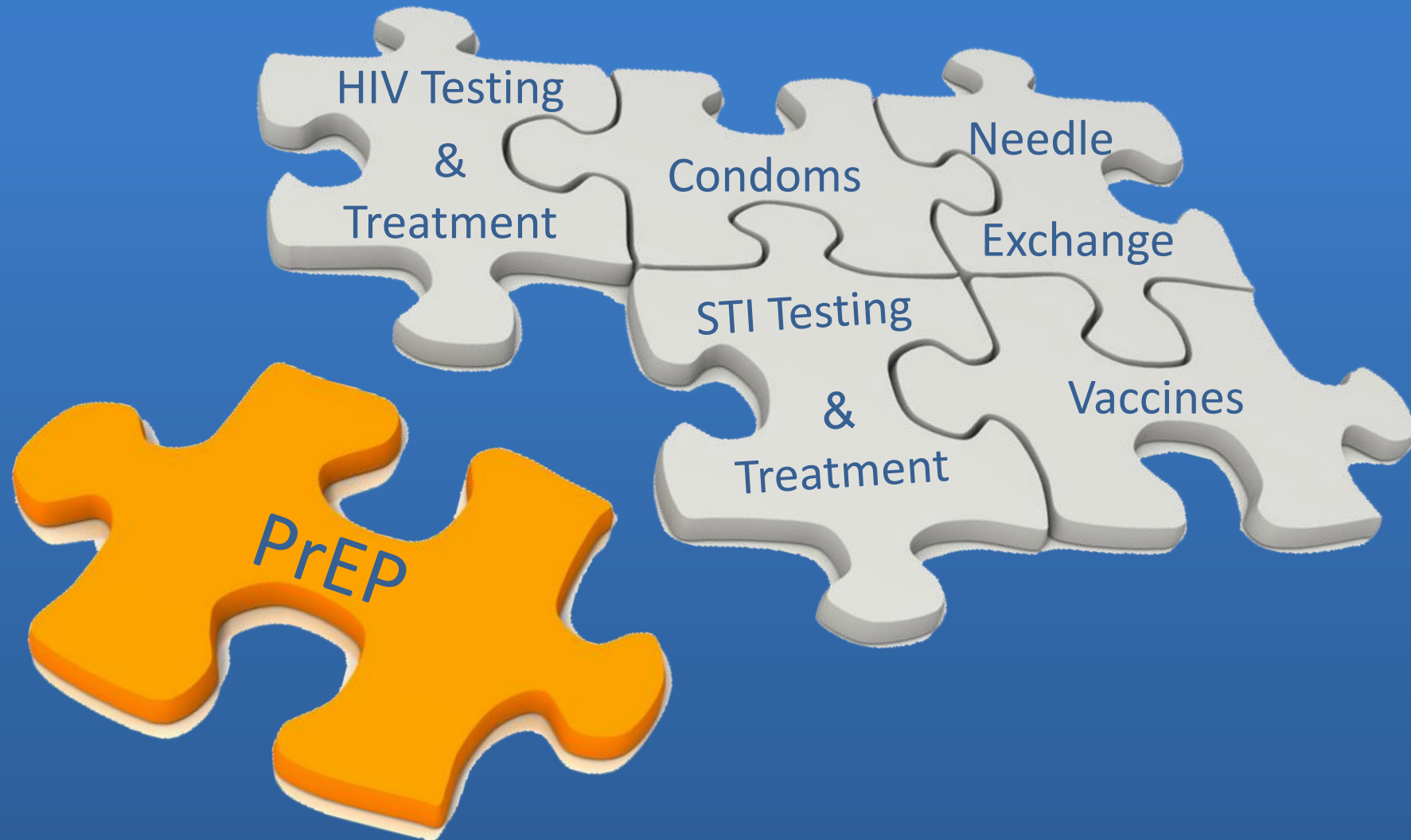
Effect of HIV Prevention Strategies from Randomized Clinical Trials



What prevents PrEP from being adopted?

- Awareness/Education
 - Provider
 - Patients
- Resistance to departure from condom-centric prevention counseling
- Integration into primary care and STI treatment settings
- Cost

PreP is One Piece of the HIV Prevention Puzzle



Evidence for Condoms




- condoms not FDA approved for anal sex (off label Rx)
- One large 2yr study in 2915 MSM showed a **76% HIV risk reduction with 100% use**
- Retrospective study by Dawn Smith at the CDC in 2013, found **always condom use stopped 7 of 10 anal transmissions**
 - 70% less than “sometimes used”
 - 68% less than “never used”
- **Only 16.4% (1 in 6) MSM reported 100% use** throughout the study period
- **Still Recommended!** Condoms don't *have* to be perfect
 - 70% risk reduction of already small HIV risk (1.38% per receptive anal sexual act) = 0.4%!

Smith D et al. Condom efficacy by consistency of use among MSM: US. 20th Conference on Retroviruses and Opportunistic Infections, Atlanta, abstract 32, 2013.
Detels R et al. Seroconversion, sexual activity, and condom use among 2915 HIV seronegative men followed for up to 2 years. J AIDS 2:77-83, 1989.



Harness your husky.



Retrospective analysis of

- **VAX004** (n=3102 MSM, 4yr f/u), first HIV vaccine trial, 1998-1999
- **EXPLORE** (n=4264 MSM, 3yr f/u), largest behavioral HIV study, 1999-2001

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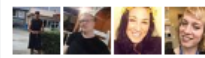


Project Inform
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UNIVERSAL ACCESS TO TEST
CURE RESEARCH
QUALITY & AFFORDABLE HEA
RELIABLE CARE & TREATMENT
ELIMINATION OF HEALTH DIS
INNOVATIVE APPROACHES TO

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Project Inform


PrEP (Pre-Exposure Prophylaxis)




Order any of our 3 educational booklets on PrEP.



Watch any of our educational videos on PrEP.



Email us a question you have about PrEP.



Find other websites and information about PrEP.

Getting PrEPped Flow Chart:

This [health care tool](#) can help consumers and navigators with working through the process for finding a clinician, getting a prescription and covering the costs of PrEP. It's laid out on a legal-sized sheet of paper, so feel free to print it on a desktop printer. In English and Spanish.

PrEP/PEP point-of-care awareness cards:

Order form: www.projectinform.org/prep-pep-cards/.

PrEP/PEP medication and patient assistance programs and copay programs:

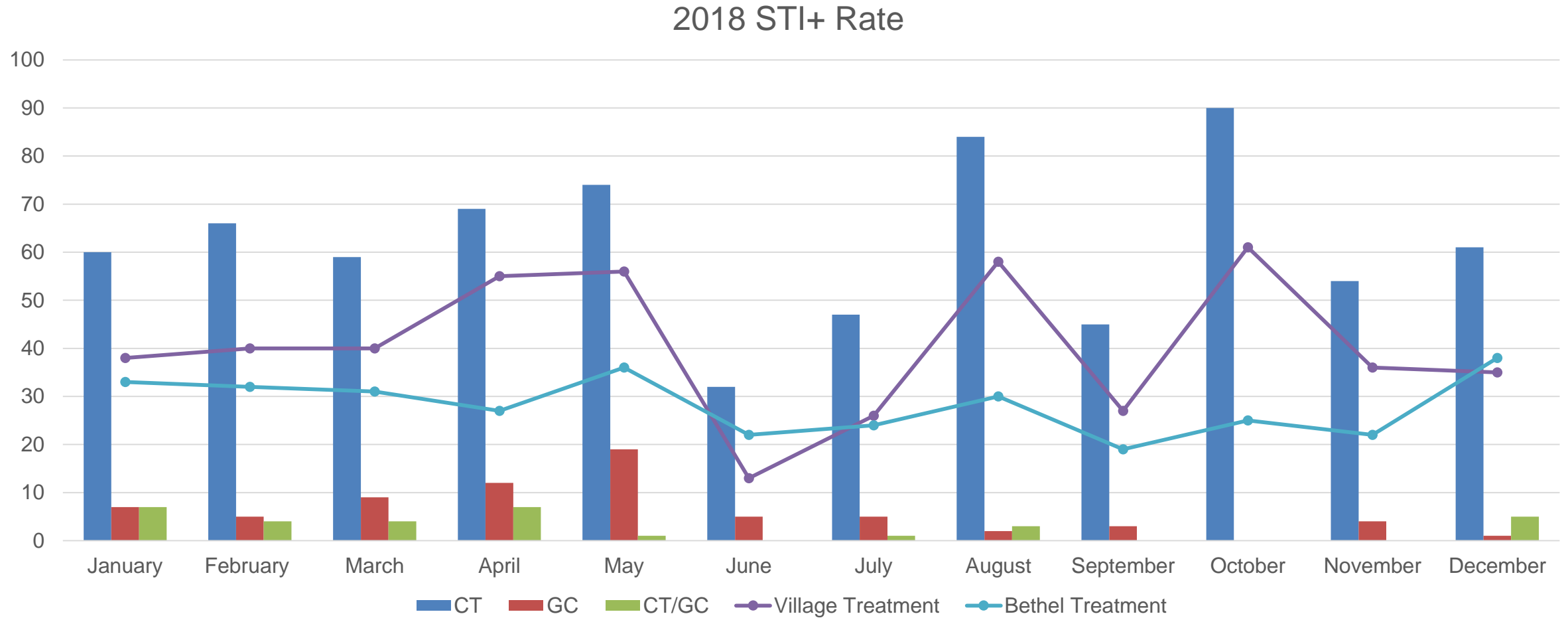
[Click on the links](#) at the bottom of that page at the Fair Pricing Coalition.

DIRECTORIES FOR PrEP-FRIENDLY PROVIDERS:

[PleasePrEPMe Provider Directory](#)
[Greater Than AIDS Provider Directory](#)

- Prevention Summary
- **Condoms: 70% risk reduction** for anal sex if 100% of the time
- estimate only 1:6 MSM using condoms 100%
- **TasP:** undetectable viral load, **transmission approaches 0%**

2018 YKHC STI+ Rates



2018 YKHC STI+ Rates

	Village Tx	Bethel Tx	CT	GC	CT/GC	Total: 854
January	38	33	60	7	7	74
February	40	32	66	5	4	75
March	40	31	59	9	4	72
April	55	27	69	12	7	87
May	56	36	74	19	1	94
June	13	22	32	5	0	37
July	26	24	47	5	1	53
August	58	30	84	2	3	89
September	27	19	45	3	0	48
October	61	25	90	0	0	90
November	36	22	54	4	0	58
December	35	38	61	1	5	77

Syphilis in the Last Frontier Webinar from State Epi

YouTube Link:

<https://youtu.be/JQpwpZQdDjU>



STI + results in YKHC Region

2017

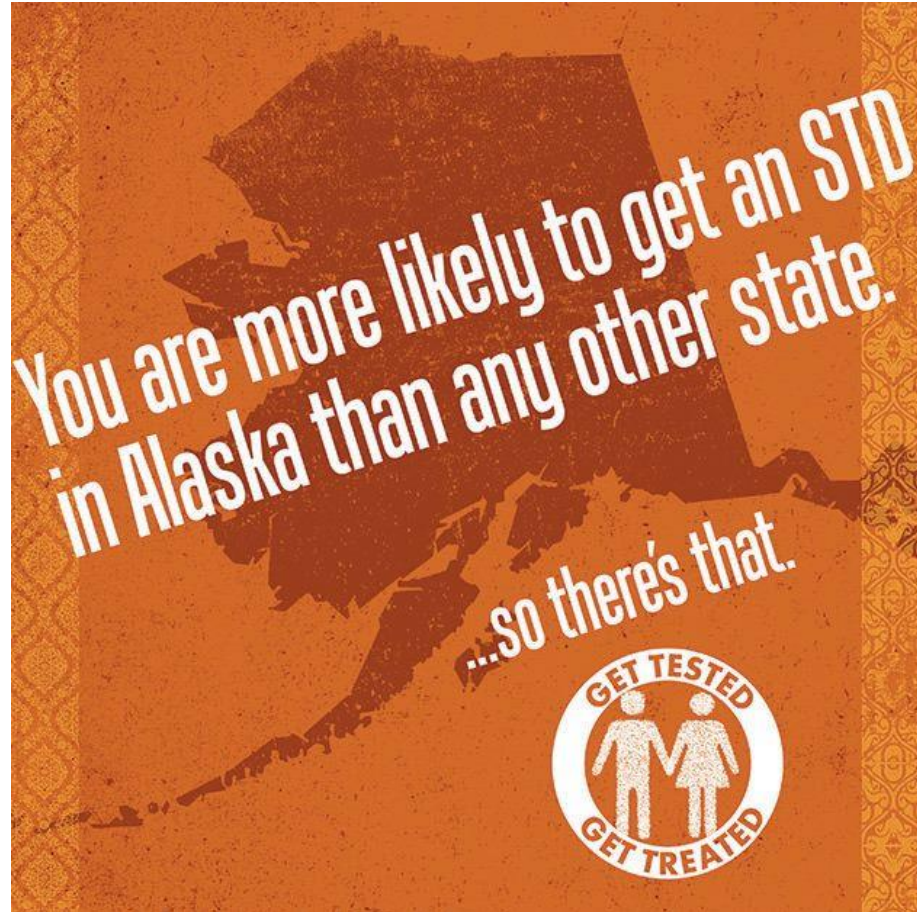
- 814 + cases

2018

- 853 + cases

2019: January – May

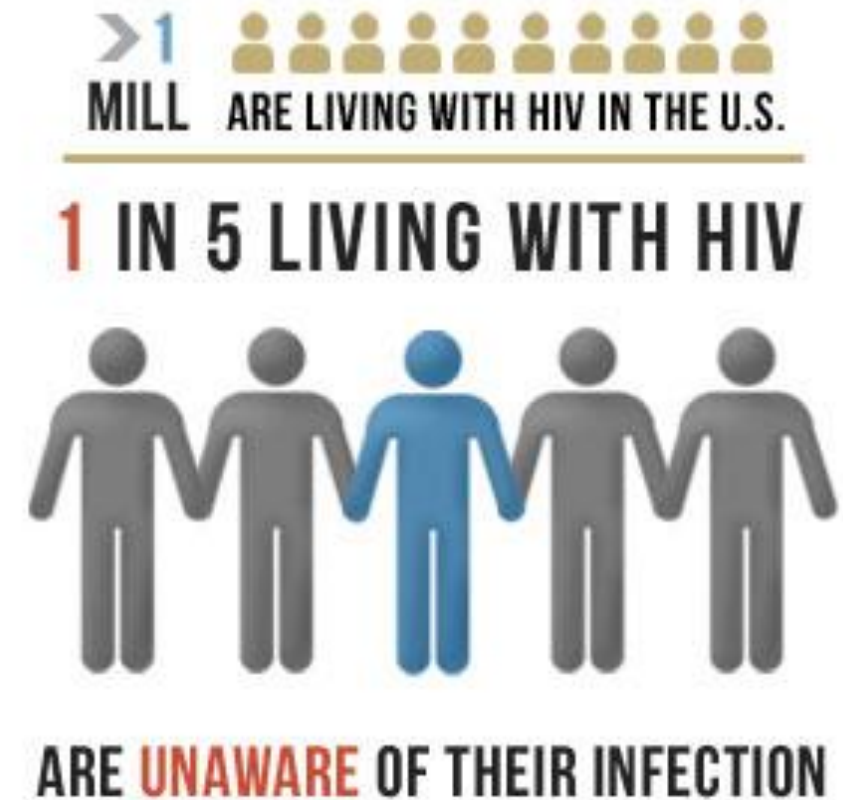
- 356 + cases so far



HIV in YKHC Region

Spring 2016 – Spring 2019

- 11 new cases of HIV diagnosed



We ALL have responsibility to deal with STI testing and treatment

- Due to State of Alaska decrease in Public Health Nursing personnel



Goal is to end HIV Epidemic

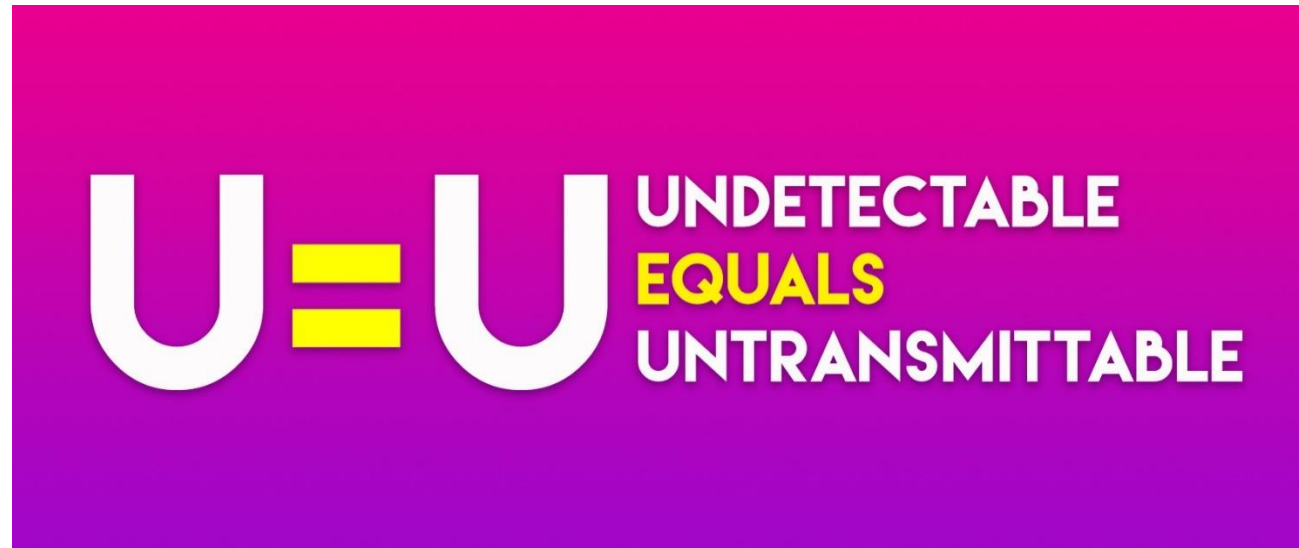
Identify those who need PrEP and initiate
If/when they request PrEP (labs can be pending)



U=U

Having a Undetectable Viral Load

- Means cannot pass along the HIV virus to a partner
- Helps decrease STIGMA of having HIV virus



If we don't ask...

A person will not tell...

But HOW we ask, makes a difference
in doing a comprehensive Sexual
History

A close-up photograph of a hand holding a red pen, writing on a medical form titled "PATIENT HEALTH HISTORY". The form includes fields for "PATIENT NAME", "REASON FOR VISIT", "DOB", "Surgical History", "Pregnancies", "Hospital?", "Surgical procedure", and "Inter med". The hand is positioned over the "REASON FOR VISIT" field, and the pen is in the process of writing. The form is white with black text and lines. The background is a plain, light-colored surface.



National HIV Curriculum

A free educational web site from the University of Washington
and the AETC National Coordinating Resource Center.

Contributors

Funded by a grant from the
Health Resources and Services Administration

Course Modules

Screening and Diagnosis

This module is for any health care provider who would like to establish core competence in testing for HIV, recognizing acute HIV infection, and linking persons diagnosed with HIV to medical care.

Overview / Quick Reference >

Rapidly access info about Screening and Diagnosis

Self-Study CNE/CME

Track your progress and receive CE credit

Question Bank CNE/CME

Interactive board-review style questions with CE credit

Clinical Challenges COMING SOON!

Expert opinions for challenging and controversial cases

Basic HIV Primary Care

The Basic HIV Primary Care module is intended for any clinician who may interact with persons who have HIV infection in a clinical setting, with an emphasis on the primary care management issues related HIV.

Overview / Quick Reference >

Rapidly access info about Basic HIV Primary Care

Self-Study CNE/CME

Track your progress and receive CE credit

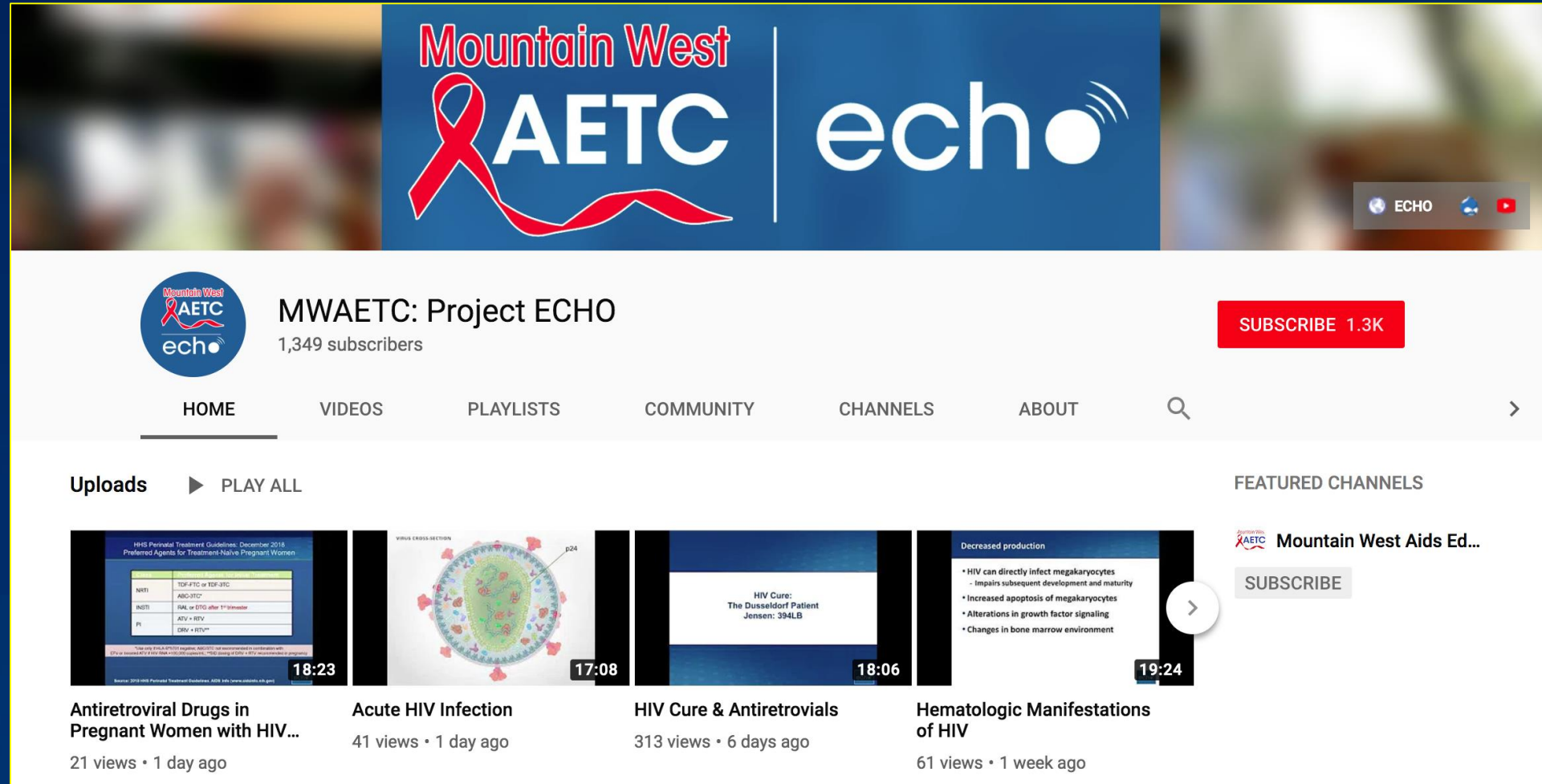
Question Bank CNE/CME

Interactive board-review style questions with CE credit

Clinical Challenges COMING SOON!

Expert opinions for challenging and controversial cases

Short free video updates on these topics...



The screenshot shows the YouTube channel page for "Mountain West AETC | echo". The channel name is "MWAETC: Project ECHO" with 1,349 subscribers. A red "SUBSCRIBE 1.3K" button is visible. The navigation bar includes links for HOME, VIDEOS, PLAYLISTS, COMMUNITY, CHANNELS, and ABOUT. The "Uploads" section is active, showing a "PLAY ALL" button. Four video thumbnails are displayed:

- Antiretroviral Drugs in Pregnant Women with HIV...** (18:23, 21 views • 1 day ago): A thumbnail showing a table of HIV treatment guidelines.
- Acute HIV Infection** (17:08, 41 views • 1 day ago): A thumbnail showing a diagram of a virus cross-section.
- HIV Cure & Antiretrovirals** (18:06, 313 views • 6 days ago): A thumbnail with the text "HIV Cure: The Dusseldorf Patient Jensen: 394LB".
- Hematologic Manifestations of HIV** (19:24, 61 views • 1 week ago): A thumbnail with the text "Decreased production" and a list of effects: "HIV can directly infect megakaryocytes", "Impairs subsequent development and maturity", "Increased apoptosis of megakaryocytes", "Alterations in growth factor signaling", and "Changes in bone marrow environment".

To the right of the video thumbnails is a "FEATURED CHANNELS" section showing "Mountain West Aids Ed..." with a "SUBSCRIBE" button.

<https://www.youtube.com/user/nwaetcecho>

Questions?



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Claire_Lewis@ykhc.org